

CONTRACT CHANGE ORDER NO. 85 **SUPPL. NO.** ---
ROAD 04-SF-80-13.2, 13.9 SHEET 3 OF 25 SHEETS
FEDERAL NO.(S) _____ CONTRACT NO.: 04-0120F4

Revise Special Provisions Section 10-4.05 "ELEVATOR" as follows:

10-4.05 ELEVATOR

This work shall consist of furnishing, installing and testing an electric rack and pinion elevator complete in place as shown on the plans, as specified in these special provisions and as directed by the Engineer.

GENERAL

The elevator system shall consist of a rack and pinion drive system mounted on the car, a vertically mounted machine steel rack incorporated with the tubular guide rails and an elevator car with controls, doors and safeties. The car shall be controlled by a ~~single automatic push button (SAPB)~~ Simplex Selective Collective operation from push buttons located in the car station and hall stations. For inspection, maintenance and operation outside of the car, a separate control station shall be furnished on top of the car. Access to this platform shall be through an electric interlocked hatch door in the car roof. A ladder shall be provided inside the car for roof access. The roof platform shall be provided with all required safety rails and equipment. In case of power failure, a brake release handle shall be furnished and located in the car for lowering the car by gravity. The drive gear shall be equipped with a centrifugal brake that shall automatically limit the descending speed of the car when the motor brake is released.

Related work not included in this section includes the following:

- A. Construction of buffer support beam.
- B. Providing supports as shown to carry structural reaction, impact and uplift loads imposed by elevator equipment, and for connection of structures which will be provided and installed by the elevator subcontractor.
- C. Caulking behind entrance frames where tower walls occur.
- D. Patching of floors, walls and surfaces constituting final finishes.
- E. Attachments to tower structures for entrances, signals, fixtures, cables and conduit, as approved by the Engineer.
- F. Installation and connection of three phase power through fused mainline switches or circuit breaker and extended to terminals of controller.
- G. Single phase circuit through disconnect and extended to controller for car lights and fan.
- H. Telephone circuit terminated at junction box of controller.
- I. Lights, light switches and convenience outlets at buffer support beam and landings.
- J. Installation of electrical conduit and pull boxes required for the complete installation shall be installed as a part of the work of this special provision. Wire and final connections by the Elevator Installer. The conduit requirements shall consist of one conduit and not less than 15 mm in size.

Temporary Electric Power

Electric power during construction for installation shall be furnished by the Contractor and shall include the following:

- A. Provide 480V, 3 Phase, 60 Hz power available through lockable disconnect switch for installation.
- B. Protection of open hoistway during construction as required by regulatory agencies.

QUALITY ASSURANCE

Quality assurance shall be in accordance with Section 6-1, "General," of the Standard Specifications, these special provisions and shall include the following:

CONTRACT CHANGE ORDER NO. 85 **SUPPL. NO.** ---
ROAD 04-SF-80-13.2, 13.9 SHEET 4 OF 25 SHEETS
FEDERAL NO.(S) _____ CONTRACT NO.: 04-0120F4

Qualifications of Bidders

The entire elevator installation shall be manufactured, installed and maintained by the acceptable manufacturers listed or as qualified by addendum. No portion of the work shall be subcontracted unless qualified and accepted by addendum.

Acceptable Manufacturers

One of the following acceptable manufacturers or approved equal shall be used:

- USA Hoist Company, Inc.
- Champion Elevators, Inc.
- Alimak Elevator Company.

Those not listed must prequalify ten (10) days prior to bid date. Submit list of projects representing equivalent equipment that has been operational for at least two years. Include State's name, person to contact and telephone number.

Manufacturer's Qualifications

As a standard of quality, equipment manufactured by USA Hoist Company, Inc., Champion Elevators, Inc. and Alimak Elevator Company will be acceptable. The manufacturer shall be responsible for the following:

- A. Preparation of all engineering and shop drawing submittals.
- B. Performance of Branch Office or Agent installing equipment.
- C. Material delivery and construction schedules.
- D. Equipment installation is per manufacturer's requirements and contract documents.
- E. Equipment and performance guarantees.

Installer and Maintenance Qualifications

Installer shall be a licensed Elevator Contractor in the State of California and include the following:

- A. Show evidence of successful experience in complete installation and maintenance of proposed manufacturer's elevator equipment.
- B. Employ sufficient competent personnel within 80 km of project to handle construction and maintenance duties.
- C. Maintain local stock of parts adequate for replacement on permanent or emergency basis within 80 km of the project site.
- D. Respond to trouble calls within one hour.
- E. Offer the State an agreement for continuing maintenance after expiration of maintenance period under this contract.

ELEVATOR DESIGN CRITERIA

The elevator's performance shall be level within 9.5 mm over 1000 mm under any elevator loading condition and shall also be level with the floor at all times. The elevator shall not overrun floor and level back.

The elevator's operating qualities shall include the following:

- A. The Engineer shall approve the riding quality of the car, ~~make~~ direct any necessary adjustments and enforce the following requirements:

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

HC-5 (Rev. 5/93)

CONTRACT CHANGE ORDER NO. 85 **SUPPL. NO.** ---
ROAD 04-SF-80-13.2, 13.9 SHEET 5 OF 25 SHEETS
FEDERAL NO.(S) _____ CONTRACT NO.: 04-0120F4

1. Acceleration and Deceleration: Starting and stopping shall be smooth and comfortable, without obvious steps of acceleration. Slowdown, stopping and leveling shall be without jars or bumps. Stopping upon operation of emergency stop switch shall be rapid but not violent.
 2. Vertical acceleration shall not exceed a maximum 1.2 meter per second squared nor a maximum jerk 2.4 meter per second squared.
 3. Full speed riding shall be free from vibration and sway.
- B. Equipment shall be capable of operating at plus or minus ten percent of normal feeder voltage and plus or minus three percent of feeder frequency without damage or interruption of elevator service.
- C. Control System shall be a closed loop feedback control incorporating positional and velocity selector system that is capable of operating continuously at contract speed and load for one hour without exceeding 50 °C from ambient. Design system to not adversely affect stability of voltage and frequency controls of emergency generator set or loads connected to emergency power bus during standby power operation.
- D. Elevator and all equipment shall be designed for a service life of 50 years in a severe marine environment.

REQUIREMENTS OF REGULATORY AGENCIES

Codes shall be in accordance with the latest applicable edition requirements of the following and as specified:

- ASME: A17.1; ~~Part XVI~~ Safety Code for Elevators and Escalators.
- CCR: Titles 8 and 24; Group ~~III~~ 4 California Code of Regulations.
- [ANSI: Z97.1; Glazing Materials Used in Buildings, Safety Performance Specifications and Methods of Tests](#)
- California Electrical Code
- California Building Code
- All State and local codes which govern.

The Contractor shall arrange and pay for inspections by governing authorities and obtain operating permits.

TECHNICAL DATA

Model:	USA Hoist Model 2000DR or approved equivalent
Capacity (Maximum):	906 907 kg
Car Size (Inside):	1676 mm wide x 965 mm deep x 2590 mm high
Speed:	0.762 m/s
Power Requirements:	480 V, 3 PH, 60 Hz, 100 amps

SUBMITTALS

All submittals shall be in accordance with "Plans and Working Drawings," of the Standard Specification, and as directed by the Engineer. The Engineer reserves the right to require any details of any portion of the equipment. The Contractor shall submit the following:

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

HC-5 (Rev. 5/93)

CONTRACT CHANGE ORDER NO. 85 **SUPPL. NO.** ---
ROAD 04-SF-80-13.2, 13.9 SHEET 6 OF 25 SHEETS
FEDERAL NO.(S) _____ CONTRACT NO.: 04-0120F4

- A. Shop Drawings.
- B. Layouts of the plan and section of hoistway, including loads imposed on bridge structure.
- C. Details of cab, fixtures and entrances. Prior to finalizing these details, preliminary general arrangement layouts of the cab structure, doors, handrails, mechanical equipment, access for maintenance and other pertinent features of the cab design shall be submitted to the engineer for approval. Such layouts shall be in sufficient detail to evaluate cab aesthetics and functionality.
- D. Data depicted on layouts or separate data sheets; power requirements, conduit runs outside of hoistway car and roller guides.
- E. Samples provided of materials and finishes exposed to public view and additional, if specifically requested, 152.4 mm by 152.4 mm panels, 304.8 mm lengths or full size if smaller, as applicable.
- F. Operating instructions of manufacturer's literature describing system operations and special operations and maintenance as specified.
- G. After completion and prior to final acceptance, submit three sets of complete and accurate maintenance data specific for the elevator. Final payment will not be made until received.
 - 1. Manuals describe proper use and maintenance of equipment, lubrication points, types of lubricants used and frequency of lubricant application.
 - 2. Parts catalog consists of a complete listing of all parts of equipment and components used in the installation.
 - 3. Wiring diagrams consist of one laminated set mounted inside the elevator control panel, one reproducible mylar set, and one blue line set delivered to State. Wiring diagrams shall be as built, specific for this installation, and reference identification on drawings shall match points identified on terminals of controller.
- H. Provide maintenance tools, and supporting software documentation and manuals required for the complete maintenance of the entire system, including diagnostics and adjusting. Maintenance tools may be hand held or built into control system and shall be of the type not requiring recharging or reprogramming, nor of the automatic destruct type. The tool and supporting software may be programmed to operate only with this project's identification serial numbering.
- I. Details of cab glass including their attachments to walls and doors. Maintenance manuals shall indicate frequency and methods of glass cleaning.

Product Delivery, Storage and Handling

Protect equipment during transportation, erection and construction. Store under cover to prevent damage due to weather conditions. Replace damaged materials.

Schedule and be responsible for coordinating related work with other trades to avoid omissions and delays in job progress and conform to the provisions of "Order of Work" of these special provisions.

Warranty

Warranty shall be provided as a special project warranty, signed by the Contractor, Installer and Manufacturer, agreeing to replace, repair, and restore defective materials and workmanship of elevator work which may develop within one year from final date of completion and acceptance of the entire installation. "Defective" is hereby defined to include, but not by way of limitation, operation or control system failures, performances below required minimums, above maximums, excessive wear, unusual deterioration or aging of materials or finishes, unsafe conditions, the need for excessive maintenance, abnormal noise or vibration and similar unusual, unexpected and unsatisfactory conditions.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

HC-5 (Rev. 5/93)

CONTRACT CHANGE ORDER NO. 85 **SUPPL. NO.** ---
ROAD 04-SF-80-13.2, 13.9 SHEET 7 OF 85 SHEETS
FEDERAL NO.(S) _____ CONTRACT NO.: 04-0120F4

Continuing Full Maintenance Contract

Quote cost and submit manufacturer's proposal for full maintenance contract for a period of five years after expiration of 12 month maintenance provided with this new installation.

Provide examinations, replacements and call-back service as specified for maintenance under these special provisions.

DESCRIPTION OF SYSTEM

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

HC-5 (Rev. 5/93)

CONTRACT CHANGE ORDER NO. 85 SUPPL. NO. ---
ROAD 04-SF-80-13.2, 13.9 SHEET 8 OF 25 SHEETS
FEDERAL NO.(S) CONTRACT NO.: 04-0120F4

Type:	Dual Geared Rack and Pinon
Capacity:	906 kg
Speed:	0.762 m/s
Stops:	5
Openings:	Pass Through Elevator Openings: 4 Front; one 5 rear
Travel:	As Shown
Control:	VF - AC Drive
Operation:	Single Automatic Push Button (SAPB) Simplex Selective Collective - NEMA 4X Control Cabinet
Machine Location:	Car Sled / Top of Car
Special Operations:	Independent Service
	Fire Emergency Service
	Standby Emergency Power
Car Enclosure Type:	Passenger - Galvanized <u>Steel</u> Panels with Power <u>Powder Coated</u> Paint Finish <u>and Laminated Glass</u> <u>Panels.</u>
Platform Size:	1800 mm Wide by 1100 mm Deep
Clear:	1676 mm Wide by 965 mm Deep by 2590 mm High
Flooring:	ASTM A 572 Tread Plate - Hot-Dipped Galvanized <u>Aluminum</u>
Car Door:	<u>1475 (rear) Single</u> Vertical Bi-Parting sliding door Galvanized <u>Steel with Laminated Glass Panel, Power</u> <u>Assisted - w/Manual Back-up. Powder coated finish.</u>
Guide Mast:	Tubular Galvanized Steel
Signals and Fixtures:	Design as Specified
Car Operating Panels:	1; Applied Type - NEMA 4X
Car Position Indicator:	Integral with Car Panel - NEMA 4X
Communication System:	Integral with Car Panel - NEMA 4X
Service Cabinet:	Integral with Car Panel - NEMA 4X
Hall Pushbuttons:	1 Riser - NEMA 4X
Passenger <u>Hoistway</u> Entrance Type Gate:	Swing Door / Gate or Accordion - Manual, Hot-Dipped Galvanize <u>Mesh</u>
Size:	1676 <u>1475</u> mm Wide by 2438 mm High Clear Opening
Frames:	
All Floors:	Hot-Dipped Galvanized <u>Aluminum</u>
Doors:	
All Floors:	Hot-Dipped Galvanized <u>Aluminum</u>
Sills:	
All Floors:	Hot-Dipped Galvanized <u>Aluminum</u> Rust Proof
Miscellaneous Items:	Key Operated Hoistway Access
	Earthquake Requirements

CONTRACT CHANGE ORDER NO. 85 **SUPPL. NO.** ---
ROAD 04-SF-80-13.2, 13.9 SHEET 9 OF 25 SHEETS
FEDERAL NO.(S) _____ CONTRACT NO.: 04-0120F4

MATERIALS

Guide rails

Two ~~76.2~~ 152 mm galvanized tubular guide rails shall be supplied for the full travel plus height of car and over travel shall be fabricated in 3048 mm sections with two racks securely attached by three bolts per rack, per location (rack material shall conform to AISI 1045 min. with 180 min. Brinell). The sections shall have male and female ends and shall be bolted together with four ASTM A 325 galvanized bolts using tension indicator washers. A single rail system will not be acceptable.

Car

The car shall be made up of rigid steel profiles standard with the manufacturer, with walls constructed of 2.66 mm thickness galvanized steel panels with laminated glass panel inserted as shown on the plans. Car roof and floor shall be made up of skid resistant aluminum check-plate. The car shall be attached to a frame structure and form an integral unit with the drive machinery located on top of the car. The car shall be provided with ~~two one~~ vertical ~~bi-parting~~ sliding doors for rear access, electrically and mechanically interlocked which shall prevent the car from being operated when the car door is not fully closed or the door from being opened while the car is between landing floors. The doors shall incorporate laminated glass panels inserted as shown on the plans. Steel keeper safety hooks shall be mounted on the car frame to ensure the car cannot disengage from the guide rail.

Galvanized surfaces including doors shall be painted in conformance with Section 10-1.69, "Clean and Paint Structural Steel," of these Special Provisions.

The glass panels inserted into the cab enclosure walls and doors shall be laminated glass, meeting ASME A17.1 and ANSI Z97.1 requirements. Glass layers shall be clear with a minimum thickness as determined by a Civil Engineer registered in the State of California.

Markings shall be provided as specified in the applicable glazing standard on each separate piece. Markings shall remain visible after installation. Modifications to the glass such as sandblasting, etching, heat treatment, painting, etc., that could alter the original properties of glass shall not be permitted.

Where provided in the wall panels, glazing setting blocks and spacers shall be utilized for each glass segment. They shall be ASTM C864, semi-hard neoprene or vinyl rubber, 70 to 90 Shore 'A' hardness when testing in accordance with ASTM D2240, of width equal to thickness of glass and long enough to limit the load on each block to 15 psi. The minimum length of setting blocks shall be 75 mm.

The panels shall be mounted in the structure so that the assembly shall withstand the required elevator tests without damage, displacement, permanent deflection or breakage, per ASME A17.1-2004, (See Part 2.14.1.2). The design of the vision panels shall allow for quick replacement in the event of glass damage. Handrails or framing shall be provided to guard the opening should the glass panel become detached, where the panels are wider than 300 mm.

The glass in the doors shall be substantially flush with the surface of the car side of the doors. Non-glass edges shall be provided on non-leading edge of door panel.

Glazing gaskets shall be provided for the glass segments in the door panels. A continuous, closed-cell extruded neoprene gasket manufactured for glazing in the type of metal doors and frames indicated shall be provided. Color shall be black. Gaskets shall be capable of being compressed 40 percent of original size and shall have 100 percent recovery capability when tested in accordance with ASTM F36. Elastomeric gaskets shall be UVA/B resistant. When the sliding door panels are subjected to a force of 1100 N applied on an area of 300 mm square, they shall not become damaged, displaced, deflect, become permanently deformed or break, per ASME A17.1-2004, Part 2.14.4.6."

Drive Machinery

The complete drive shall consist of two ~~14.9~~ 18.6 kw T.E.F.C. motors (or as required by the manufacturer), one reduction gear and two drive pinions engaging separate racks (one on each tower) on

CONTRACT CHANGE ORDER NO. 85 **SUPPL. NO.** ---
ROAD 04-SF-80-13.2, 13.9 SHEET 10 OF 25 SHEETS
FEDERAL NO.(S) _____ CONTRACT NO.: 04-0120F4

opposite sides of the car, connected by a common shaft. Each drive motor shall also include one electric disc brake provided with external manual brake release mounted on the rear of the motor.

The elevator drive machinery shall be designed to allow for a minimum vertical differential displacement of 56 mm between the elevator's tower-mounted racks without impacting the operation of the elevator.

Safety Device

A combined overspeed governor and safety device shall be mounted on a machinery plate separate from the drive system machinery plate and shall be in constant engagement with the rack via a safety pinion. In the event of overspeed, the governor shall instantly actuate the safety device which shall bring the car to a gradual stop. Actuation of the overspeed safety device shall cause power to be removed from the drive motor. Manual resetting of the safety device shall actuate the safety device electrical contact thereby returning power to the drive motor.

Centrifugal Brake

For safe control of the descending speed of the car by gravity, in case of power failure, the machinery shall be provided with a centrifugal brake device which shall be mounted on the gear reduction housing and connected directly to the input gear reduction shaft. When the motor brake is released, the centrifugal brake shall automatically keep the descending car at a preset speed below the governor/safety device tripping speed.

Landing Doors

For all landings (including the bottom landing), an electrically and mechanically interlocked horizontal safety gate shall be provided with associated equipment, mounting hardware and control accessories and protective screens on all sides of hoistway accessible from the platform. The gate shall be manufacturer's standard swing, ~~accordian~~, or other suitable design and shall provide a minimum clear opening of ~~1676~~ 1475 mm wide by 2438 mm high. Landing door mechanical and electrical interlocks shall be of the type approved by state and local authorities. The interlock shall prevent the landing door from being opened when the elevator car is not at the landing. Mounting of landing doors shall be coordinated with the Contractor. Mounting details shall be submitted for Engineer's approval.

Surface Finishing

The finishing of the elevator shall be galvanized, and powder coated paint to match the bridge colour, suitable for service in a marine environment. All construction made by plate, beam and bar and tubular material shall be hot-dipped galvanized. Materials, such as wire mesh, which may be subject to deforming by hot dipping, shall be spray galvanized. Galvanized surfaces and elevator exterior doors shall be painted in conformance with the provisions in Section 10-1.69, "Clean and Paint Structural Steel," of these special provisions.

Power and Control Feed

Power and control feed to the car shall be by means of a power bus conductor strip(s) attached to the tower legs as noted on the plans. The strip(s) shall be suitable for outdoor marine installation.

Electrical Equipment

Incoming electric power shall be connected to an auxiliary panel at the ground level. The panel shall be equipped with a main contactor, which disconnects motive power to the car when any landing door is opened. All electric devices on the car shall be connected to the main control panel. The control circuits shall be fed from the main power supply by control transformers. Control voltage shall be 127 V, 1 PH, 60 Hz. The car shall be provided with limit switches for the door(s), trap door, safety devices and normal up and down terminal limits. The final limit switch, also mounted on the car, shall act directly on the power supply and

CONTRACT CHANGE ORDER NO. 85 **SUPPL. NO.** ---
ROAD 04-SF-80-13.2, 13.9 SHEET 11 OF 25 SHEETS
FEDERAL NO.(S) _____ CONTRACT NO.: 04-0120F4

disconnect power to the motor in the event of over travel. The car shall also be provided with a light, emergency light and 12 volt battery with charger, push button control station with emergency stop, and a constant pressure control on a separate circuit on top of car for inspection and maintenance purposes. A telephone shall be provided inside the car for connection with the bridge communications system. Elevator manufacturer shall furnish each motor with a variable frequency drive.

All electrical panels, enclosures and junction boxes shall be rated NEMA-4X.

Single Automatic Push Button Operation

~~Operate elevator from single button landing stations and operating buttons in car. Activating a landing or car button shall cause the car to start and proceed to that floor. When the car is in use and a hall call is registered, a bell will sound and the "in-use" indicator will light. All elevator operation and control functions shall also be provided on the roof operation platform. Provision shall be provided for manual starting and stopping between landings for inspection and maintenance.~~

Simplex Selective Collective Operation

Arrange for Simplex Selective Collective automatic operation. Operate elevators from a single riser of landing buttons and from operating device in car.

Momentary pressure of one or more car or landing buttons, other than those for landing at which car is standing, starts car, and causes car to stop at first landing for which a car or landing call is registered corresponding to direction in which car is traveling. Stops made in order in which landings are reached, irrespective of sequence in which calls are registered.

If an up traveling car has a passenger for an intermediate floor and a down call is registered at that floor, with no calls above car, it travels to floor, opens door to let passenger out, then lights down direction arrow in hall lantern and accepts waiting passenger without closing and reopening doors.

Signal Fixtures

Provide operating devices as required for **SAPB Simplex Selective Collective** operation specified. Provide a car operating station with a light up push button for each landing served. Include emergency devices and signals as required by code. Incorporate emergency communications and all required devices in a single applied car operation station. Provide NEMA-4X devices and boxes.

Provide applied hall stations at each landing with call buttons and in-use lights. Provide keyed ~~hoistway access at terminal landings~~ lockout switches at the car's operating panel inside the car for landings 2, 3, 4, and 5 to prohibit the car from stopping and car door opening to these landings when the lockout is engaged to that landing. Personnel at a locked-out landing shall be able to call the car to the landing and have the car door open normally by pressing the button at the landing's hall station. Emergency responders shall have access to locked-out landings as required by code.

Hoistway Enclosures

Welded wire mesh of 4 mm (5/32") Dia. galvanized wires complete with (1"x1"x16 gauge) U-band frames, powder coated black.

Options

The following items shall be available on special order:

- Special Surface Treatment.
- Marine environment paint for galvanized surfaces.
- Stainless Steel control cabinets and electrical boxes; NEMA-4X.
- Radio or communication system.

CONTRACT CHANGE ORDER NO. 85 **SUPPL. NO.** ---
ROAD 04-SF-80-13.2, 13.9 SHEET 12 OF 25 SHEETS
FEDERAL NO.(S) _____ CONTRACT NO.: 04-0120F4

- Warning lights and siren.
- Extended warranty beyond 12 months.
- Lights for landing platforms.

CONSTRUCTION

Bidders shall examine architectural, structural, electrical and mechanical plans and specifications. Any discrepancies that affect the elevator work or conditions adverse to the bidder's equipment shall be brought to Engineer's attention at least seven days prior to the bid date. If no discrepancies are presented, changes required to accommodate bidders' equipment become the responsibility and cost of the Contractor.

Preparation

The Contractor shall verify field dimensions before proceeding with the work and coordinate related work by other trades. Verify the following to be acceptable for installation of elevator:

- A. Hoistway has been correctly sized and otherwise properly prepared.
- B. Equipment supports are satisfactory.
- C. Electrical rough-ins are correct.
- D. Do not begin installation until unsatisfactory conditions have been corrected.

INSTALLATION

Installation of the elevator shall be per manufacturer's requirements, those of regulatory agencies and as specified.

Welded Construction

Provide welded connections for installation of elevator work where bolted connections are not required for subsequent removal or for normal operation, adjustments, inspection, maintenance and replacement of worn parts. Comply with AWS standards for workmanship and for qualifications of welding operators.

Lubrication

Lubricate operating parts of systems as recommended by manufacturer.

Alignment

Coordinate installation of hoistway entrances with installation of elevator guide rails, for accurate alignment of entrances with car. Reduce clearances to minimum, safe workable dimensions at each landing.

Erect guide rails plumb and parallel with maximum deviation of 1.6 mm. Anchorage of guide rails shall not compromise waterproofing. Do not bottom rails on buffer support beam.

Temporary Acceptance And Use

When the elevator is near completion and declared ready for service, State agrees to accept elevator and place it into automatic service.

The elevator must be tested and inspected by regulatory agencies and a permit to operate issued.

A walk-through examination will be performed in the presence of the Engineer, General Contractor and Elevator subcontractor to determine present condition of elevator.

The State agrees to sign or cause the General Contractor to sign a temporary acceptance form that is mutually agreeable to all parties.

During this temporary acceptance period, the State agrees to pay or cause the General Contractor to pay an agreed amount per day per elevator for regular maintenance. The Elevator subcontractor shall state in his bid per diem cost for this maintenance per elevator.

CONTRACT CHANGE ORDER NO. 85 **SUPPL. NO.** ---
ROAD 04-SF-80-13.2, 13.9 SHEET 13 OF 25 SHEETS
FEDERAL NO.(S) _____ CONTRACT NO.: 04-0120F4

The guarantee and full maintenance period will be effective upon final acceptance of the entire installation.

FIELD QUALITY CONTROL

Regulatory Agencies Inspection

Upon completion of elevator, the Contractor shall provide instruments, weights and personnel to conduct test required by regulatory agencies. The Contractor shall submit a complete report describing the results of all the tests.

Examination and Testing

When installation is ready for final acceptance, the Contractor shall notify and assist the State in making a walk-through inspection of entire installation to assure workmanship and equipment complies with contract documents. The Contractor shall provide equipment to perform the following tests:

- A. One hour heat and run test with full load in car.
 - 1. Stop car at each floor in each direction.
 - 2. Provide well-shielded thermometers for motor and generator and verify that temperatures do not exceed 50 degrees Centigrade above ambient.
 - 3. Performance and leveling tests shall be made before and after heat and run test.
- B. Check and verify operation of all safety features and special operations.
 - 1. Measure horizontal acceleration.
 - 2. Measure acoustical output levels in machine room, ~~lobbies~~ landings and car.
- C. Correction.
 - 1. Make corrections to defects or discrepancies at no cost to State. Should discrepancies be such that re-examination and retesting is required, all costs including those of State's representative fees shall be paid for by the Elevator subcontractor.

Final Acceptance

Final acceptance of the installation will be made only after all corrections are complete, final submittals and certificates received and the State is satisfied and the installation is complete in all respects. Final payment will not be made until the above is completed.

Instructions

The Contractor shall instruct State's personnel in proper use of system.

Maintenance

The Contractor shall provide complete continuing maintenance on entire elevator equipment during regular working hours on regular working days for a period of 12 months after filing a "Notice of Completion".

Include systematic examination twice monthly, adjustment, and lubrication of elevator equipment whenever required and replacement of defective parts with parts of same manufacture as required for proper operation. The Contractor shall not be responsible for repairs to car enclosure, door panels, frames, sills or

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

HC-5 (Rev. 5/93)

CONTRACT CHANGE ORDER NO. 85 **SUPPL. NO.** ---
ROAD 04-SF-80-13.2, 13.9 SHEET 14 OF 25 SHEETS
FEDERAL NO.(S) _____ CONTRACT NO.: 04-0120F4

platform flooring resulting from normal usage or misuse, accidents and negligence for which the Contractor is not responsible.

Maintain the performance standard set forth in this special provision and maintain correct operation of the dispatching system.

Maintain smooth starting and stopping, smooth riding qualities and accurate leveling at all times.

In event of failures, provide 24 hour call-back service at no additional cost to State.

Should the elevator become inoperative, repair within 24 hours of notification of such failure. Breakdown of major components shall be completed and service restored within 72 hours.

If the Contractor fails to comply with above, the State may order the work done by others at the Contractor's expense. Devices repaired or replaced by others shall, nevertheless, become the sole responsibility of the Contractor for all maintenance and correct operation of such devices for lifetime of this contract.

During the maintenance period at six month intervals or less, testing of all safety devices and emergency operations shall be performed with written reports on each test provided as directed. Testing shall be performed at such time, as not to interfere with building operations.

Expendable Parts

The Elevator subcontractor shall provide a metal cabinet on project premises containing expendable parts required for prompt replacement. Parts used for routine maintenance shall be replenished and stored in the cabinet to ensure an adequate supply is available. Parts and cabinet shall become State's property and not removed upon expiration of maintenance period.

Final Service and Inspection

Two weeks before expiration of the year's maintenance, the equipment shall be lubricated, fully serviced, adjusted to the standards designated and emergency service operation devices shall be checked. A complete inspection will be made by a representative of the State.

MEASUREMENT AND PAYMENT

The contract lump sum price paid for elevator shall include full compensation for furnishing all labor, materials, including expendable parts, tools, equipment, and incidentals and for doing all the work involved in installing the elevator complete in place, including all required permits, agency inspections, testing and maintenance, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

